

Amendments to 2010 California Building Code: Following is a summary of the local amendments effective in the City of Fremont on January 1, 2011.

The full text of the local amendments may be viewed at:

Fremont Municipal Code: <http://www.codepublishing.com/ca/fremont/>

Title VII Building Regulations

Chapter 1 Fremont Building Standard Code

- **104.12 Limits on Repair/Remodel for R-3 and U Occupancies:** When removal or replacement of 50% or more of linear length of walls (interior & exterior) and roof within 1-year time period, project shall be considered new construction and the entire building shall comply with all current codes, including requirements for automatic fire sprinklers.
- **105.2 Work Exempt from Permit:**
 - Fences not over 6-feet high when not subject to specific City of Fremont Planning or Zoning regulations.
 - Retaining walls in hillsides or retaining walls subject to City of Fremont Planning, Zoning and Grading regulations or other City Council resolution are not subject to permit exceptions.
- **105.3.2 Time Limitation of Applications:** An application is valid for 180-days, except that the Building Official is authorized to grant ONE extension of time for an additional period not exceeding 180 days.
- **105.5 Expiration:** Every permit issued will expire if no inspection indicating substantial progress has been performed within 180-days of permit issuance or within 180-days from the last inspection. The Building Official may extend the time for action by the permittee for a period not exceeding 180-days on written request by permittee showing that circumstances beyond their control have prevented action from being taken.
- **111.2 Certificate Issued:** Where a project is designed by a licensed Architect or Engineer, prior to issuance of a certificate of Occupancy, the Architect or Engineer of record provides the Building Official with a written statement that, based upon field observation performed by him or her or designee, the building or structure is in general conformance with the approved plan.
- **406.1.4 Separation:** Private garages shall be separated from dwelling units and attic area by means of minimum 5/8-inch Type X gypsum board or equivalent applied to the garage side. Door openings between a private garage and the dwelling unit shall be equipped with either solid core door or solid or honeycomb core steel doors not less than 1 3/8-inches thick, or door in compliance with Section 715.4.3. Door shall be self closing and self latching.
- **709.3 Fire Partitions - Fire Resistance Rating:** No exception for dwelling units and sleeping units.
- **712.3 Horizontal Assemblies – Fire Resistance Rating:** No exception for dwelling units and sleeping units.
- **701A Wildfire Area Construction:** All new or alterations to existing buildings located in Very High Fire Hazard Severity Zone or Wildland-Urban Interface Fire Area shall comply with materials and construction standards contained in Chapter 7A.
- **705A.2.1 Roof Coverings:** Only Class A rated roof covering materials may be installed in Wildland-Urban Interface Fire Area.
- **707A.3.1.2 Exterior Wall Coverings:** All exterior faces of exterior walls shall be 1-Hour fire rated and shall meet Class I flame spread requirements.

- **Table 1018.1 Corridor Fire Resistance Rating:** All corridors in A, B, F, M, S and U occupancies serving occupant load greater than 30 shall be 1-hour rated.
- **1507.1.1:** Roof covering installer shall provide documentation of the roof covering classification when structure is located in Wildland-Urban Interface Fire Area and 50% or more of the area of the roof is being roofed or re-roofed.
- **1613.6.7 Minimum Distance for Building Separation:** Equations 16-44 is modified to eliminate the denominator.
- **Modified ASCE 7**
 - **Table 12.8-2:** Modified to read; “Eccentrically braced steel frames *and buckling-restrained braced frames.*”
 - **12.2.3.1, Exception 3:** Modified to read; “3. Detached one and two family dwellings *up to two stories in height* of light frame construction.”
 - **Equation 12.8-16** modified as follows:
$$\theta = \frac{P_x \Delta I}{V_x h_{sx} C_d} \quad (12.8-16)$$
 - **1613.11 Suspended Ceilings:** Suspended ceilings and lighting shall be limited to 6-feet below the structural deck unless lateral bracing is designed by licensed engineer or architect.
 - **1613.11.3.1 Bracing at Discontinuities:** Positive bracing shall be provided at changes in ceiling plane elevation or at discontinuities in the ceiling grid system.
 - **1613.11.3.2 Support for Appendages:** Cable trays, electrical conduits and piping shall be independently supported and independently braced from the structure.
 - **1613.11.3.3 Sprinkler Heads:** All sprinkler heads except fire-resistive-rated floor/ceiling or roof/ceiling assemblies, shall be designed to allow for free movement of the sprinkler pipes with oversize rings, sleeves or adaptors through the ceiling tile.
 - **1613.11.3.4 Perimeter Members:** A minimum wall angle size of at least a two-inch horizontal leg shall be used at perimeter walls and interior full height partitions. The first ceiling tile shall maintain ¾ inch clear from the finish wall surface.
 - **1613.11.4 Special Requirements for Means of Egress:** Suspended ceiling assemblies located along means of egress serving an occupant load of 30 or more shall:
 - Shall be connected and braced with vertical hangers attached directly to the structural deck along the means of egress. Spacing of vertical hangers shall not exceed 2 feet on center along the entire length of the suspended ceiling assembly located along the means of egress.
 - All lay-in panels within a 4-foot radius of exit lights and exit signs, shall be secured to the suspension ceiling assembly with two hold-down clips minimum for each tile.
 - Independent supports and braces shall be provided for light fixtures required for exit illumination.
 - Separate support from the structural deck shall be provided for all appendages such as light fixtures, air diffusers, exit signs and similar elements.
- **1803.2 Soil and Foundation Investigation Required:** A soil and foundation investigation shall be required for all projects except:
 - Group U occupancies;
 - Single story additions 1,000 square feet or less to existing R3 occupancies not located within seismic induced landslide hazard zone.
 - Multi-story additions where area added above first floor is 1,000 square feet or less; and,

- Structural design prepared by architect or engineer licensed in the state of California; and,
 - Architect of engineer of record certifies in writing that the new foundation matches existing foundation; and,
 - Building not located within seismic induced landslide hazard zone.
- New soil and foundation investigation report not required when an existing soil report is available for the original construction.
- Accessory and minor additions to other occupancies may be exempted by the Building official.
- **1803.8 Review:** Before a building permit will be issued for project that requires soil and foundation investigation, the Geotechnical Engineer or Civil Engineer who prepared the investigation shall provide a written statement that is stamped and signed that states:
 - Plans and specifications substantially conform to the recommendation in the soil investigation; and,
 - The Geotechnical Engineer or Civil Engineer who prepared the soil investigation has been retained to provide soil site observation and provide periodic and final reports to the City.
- **1803.9 Field Report:** Before a foundation inspection will be performed for project that requires soil and foundation investigation, the Geotechnical Engineer or Civil Engineer who prepared the investigation shall provide a written field report that states:
 - The building pad was prepared and compacted in accordance with the soil report and specifications; and,
 - The foundation or pier excavation, depth, backfill material, and drainage substantially conform to the soil report and approved plans.
- **1803.10 Final Report:** Before a final inspection will be performed for project that requires soil and foundation investigation, the Geotechnical Engineer or Civil Engineer who prepared the investigation shall provide a written field report that states the completed pad, foundation, finish grading, drainage and associated site work substantially conforms to the approved plans, specifications and investigation.
- **1804.3.1 Site Grading:** Slopes for permanent fills shall not be steeper than 3 horizontal to 1 vertical unless substantiating data justifying steeper cut slopes is provided by Geotechnical Engineer or Civil Engineer.
- **1807.1.6 Prescriptive Design of Concrete and Masonry Foundation Walls:** Prescriptive designs of foundation walls shall not be used for structures assigned to Seismic design Category D, E or F.
- **Modified ACI 318:**
 - **22.10.1(b):** Delete Exception for one and two family dwellings.
 - **22.10.1(c):**
 - A minimum of one bar of reinforcing shall be provided at top and bottom of all footings, regardless of width.
 - Eliminate exceptions.
 - Detached one and two family dwelling three stories or less in height and constructed with stud-bearing walls may have plain concrete footings with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

- **21.6.4.1:** Modified to read; “Where the calculated point of contraflexure is not within the middle half of the member clear height, provide transverse reinforcement as specified in ACI 318 Sections 21.6.4.1, Item (a) through (c), over the full height of the member.
- **21.6.4.8:** The following section is added.

21.6.4.8 – At any section where the design strength, ϕP_n , of the column is less than the sum of the shears V_e computed in accordance with ACI 318 Sections 21.5.4.1 and 21.6.5.1 for all the beams framing into the column above the level under consideration, transverse reinforcement as specified in ACI 318 Sections 21.6.4.1 through 21.6.4.3 shall be provided. For beams framing into opposite sides of the column, the moment components may be assumed to be of opposite sign. For the determination of the design strength, ϕP_n , of the column, these moments may be assumed to result from the deformation of the frame in any one principal axis.
- **21.9.4:** The following section is added.

21.9.4.6 – Walls and portions of walls with $P_u > 0.35P_o$ shall not be considered to contribute to the calculated strength of the structure for resisting earthquake-induced forces. Such walls shall conform to the requirements of ACI 318 Section 21.13.
- **21.11.6:** The following section is added.

Collector and boundary elements in topping slabs placed over precast floor and roof elements shall not be less than 3 inches (76 mm) or $6 d_b$ thick, where d_b is the diameter of the largest reinforcement in the topping slab.
- **1909.4 Design:** The exception does not apply to; structural elements designed to resist seismic lateral forces for structures assigned to Seismic Design Category D, E or F.
- **2204.1 Welding:** The following sections are added.

2204.1.1 Consumables for welding.

2204.1.1.1 Seismic force resisting system (SFRS) welds. All welds used in members and connections in the SFRS shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3. AWS D1.8 Clauses 6.3.5, 6.3.6, 6.3.7 and 6.3.8 shall apply only to demand critical welds.

2204.1.1.2 Demand critical welds. Where welds are designated as demand critical, they shall be made with filler metals meeting the requirements specified in AWS D1.8 Clause 6.3.
- **2205.4:** The following section is added.

2205.4 AISC 341, Part I, Section 13.2 Members. Add Section 13.2f to read as follows:

13.2f. Member Types. The use of rectangular HSS are not permitted for bracing members, unless filled solid with cement grout having a minimum compressive strength of 3,000 psi (20.7 MPa) at 28 days. The effects of composite action in the filled composite brace shall be considered in the sectional properties of the system where it results in the more severe loading condition or detailing.
- **2304.9.1 Fastener Requirements:** Staple fasteners in Table 2304.9.1 shall not be used to resist transfer seismic forces in structures assigned to Seismic Design Category D, E or F.
 - Exception: Staples may be used to resist or transfer seismic forces when the allowable shear values are substantiated by cyclic testing and approved by the Building Official.
- **2305.4 Quality of Nails:** The following section is added.

2305.4 Quality of Nails. In Seismic Design Category D, E or F, mechanically driven nails used in wood structural panel shear walls shall meet the same dimensions as that required for hand-driven nails, including diameter, minimum length and minimum head diameter. Clipped head or box nails are not permitted in new construction. The allowable design value for clipped head nails in existing construction may be taken at no more than the nail-head-area ratio of that of the same size hand-driven nails.

- **2305.5 Hold-Down Connectors:** The following section is added.

2305.5 Hold-down connectors. In Seismic Design Category D, E or F, hold-down connectors shall be designed to resist shear wall overturning moments using approved cyclic load values or 75 percent of the allowable seismic load values that do not consider cyclic loading of the product. Connector bolts into wood framing shall require steel plate washers on the post on the opposite side of the anchorage device. Plate size shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. Hold-down connectors shall be tightened to finger tight plus one half (1/2) wrench turn just prior to covering the wall framing.

- **2306.2.1 Wood Structural Panel Diaphragm:**

- Wood structural panel diaphragms fastened with staples shall not be used to resist seismic forces in structures assigned to Seismic Design Category D, E or F.
 - Exception: Staples may be used for wood structural panel diaphragms when the allowable shear values are substantiated by cyclic testing and approved by the Building Official.
- Wood structural panel diaphragms used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.
 - Exception: Wood structural panel diaphragm is permitted to be fastened over solid lumber planking or laminated decking, provided the panel joints and lumber planking or laminate decking joints do not coincide.

- **2306.3 Wood Structural Panel Shear Walls:** The following is added to the end of the paragraph:

- Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall not be less than 4 feet by 8 feet, except at boundaries and at changes in framing. Wood structural panel thickness for shear walls shall not be less than 3/8 inch thick and studs shall not be spaced at more than 16 inches on center.
- The maximum allowable shear value for three-ply plywood resisting seismic forces in structures assigned to Seismic Design Category D, E or F is 200 pounds per foot. Nails shall be placed not less than 1/2 inch in from the panel edges and not less than 3/8 inch from the edge of the connecting members for greater than 350 pounds per foot. Nails shall be placed not less than 3/8 inch from panel edges and not less than 1/4 inch from the edge of the connecting members for shears of 350 pounds per foot or less.
- Wood structural panel shear walls fastened with staples shall not be used to resist seismic forces in structures assigned to Seismic Design category D, E or F.
 - Exception: Staple may be used for wood structural panel shear walls when the allowable shear values are substantiated by cyclic testing and approved by the Building Official.
- Wood structural panel shear walls used to resist seismic forces in structures assigned to Seismic Design Category D, E or F shall be applied directly to the framing members.

- **2306.7:** The following sections are added following 2307.7.

2306.7.1 Resistance to shear (wood framing). Wood-framed walls sheathed with gypsum board shall not be used to resist wind and seismic loads. Wood-framed walls sheathed with lath and plaster constructed in accordance with Table 2306.7 may be used to resist wind and seismic loads for light-framed buildings no more than 1,600 square feet in floor area and entire structure must be single story structure.

2306.7.2 Resistance to shear (steel framing). Cold-formed steel-framed walls sheathed with gypsum board shall not be used to resist wind and seismic loads. Cold-formed steel-framed walls sheathed with lath and plaster constructed in accordance with Table 2306.7 may be used to resist wind and seismic loads for light-framed buildings no more than 1,600 square feet in floor area and entire structure must be single story structure.

- **2308.12.5 Attachment of Sheathing:** The following is added at the end of the paragraph:
 - Staple fasteners in Table 2304.9.1 shall not be used to resist or transfer seismic forces in structures assigned to Seismic Design Category D, E or F.
 - Exception: Staples may be used to resist or transfer seismic forces when allowable shear values are substantiated by cyclic testing and approved by the Building Official.
 - All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above the framing clips spaced at maximum 24 inches on center with four 8d nails per leg. Braced wall panels shall be laterally braced at each top corner and at maximum 24 inch intervals along the top plate of discontinuous vertical framing.
- **2508.5 Horizontal Gypsum Board Diaphragm Ceiling:** Sections 2508.5.1 through 2508.5.6 and Table 2508.5 are deleted.
- **3401.1 Existing Buildings:** Additions, alterations or repairs to existing buildings which are located within the Wildland-Urban Interface Fire Area shall comply with the requirements of Chapter 7A.
- **3408.4 Change of Occupancy:** The following is added following the first paragraph.

3408.4.1 AFES. When a change of occupancy results in a structure being reclassified to a higher occupancy category per table 3408.4.1, an automatic fire extinguishing system shall be installed throughout the structure.

*Table 3408.4.1

Relative Hazard	Occupancy Classifications
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A,E, I-1,M,R-1,R-2,R-4
4	B,F-1,R-3,S-1
5 (Lowest Hazard)	F-2,S-2,U

* Ref: 2009 IEBC Table 912.4

Amendments to 2010 California Green Building Code:

- **202 Low-Rise Residential Buildings:** Group R Occupancy and is six stories or less, or that is a one- or two-family dwelling or townhouse.
- **A4.601.1 Local Mandatory Measures:** The Tier 1 measures in Appendix A4 are mandatory for new low-rise residential buildings.
 - **Exception:** Appendix A4, Tier 1 is not mandatory for new low-rise residential projects that meets the minimum point requirements in each category and scores at least 50 points on either the Single Family or Multifamily GreenPoint Rated Checklist published by www.greenpointrated.org and is verified by a Certified Green Point Rater.

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Title VII Building Regulations

Chapter 1 Fremont Building Standard Code, Article 7 Fremont Fire Code

- **105.6.8 Compressed Gasses:** A permit is required to install any piped distribution system for compressed or to install a non-flammable medical gas manifold system.
- **105.6.10 Cryogenic Fluids:** Except where federal or state regulations apply and except for fuel systems of a vehicle, a construction permit is required to install a cryogenic vessel or piping system for the storage or distribution of cryogenics.
- **105.6.16:** Add the following language after item #11.
 - 12. To store, handle or use class III-B liquids with a flashpoint of less than 500 degrees F. in excess of 110 gallons.
 - 13. To install, alter, remove, test, abandon, place temporarily out of service or otherwise dispose of any flammable or combustible liquid tank.
- **105.6.48:** The following section is added.

105.6.48 Christmas Tree Lot. To operate a Christmas Tree Sale Lot. See additional provisions in Section 806.
- **105.6.49:** The following section is added.

105.6.49 Fire Alarm Systems. No person shall install or cause to be installed any fire alarm signaling system or device designed to indicate a fire emergency without first obtaining a permit. Application and plans for such permit shall be made to the building & safety department.
- **503.6 Security Gates:** The following sections are added.
 - 503.6.1 Automatic security gates that cross fire department access roadways, shall be equipped with an approved infrared receiver and key override switch.
 - 503.6.2 Manual security gates shall be equipped with an approved key box.
- **506.3:** The following section is added.

506.3 Emergency information boxes. When an occupancy contains storage of hazardous materials that exceed the exempt amounts listed in Chapter 27 of the California Fire Code, or the occupancy is required by the fire chief to have available on site pre-fire plans, the fire chief may require an approved emergency information box be installed on the premises for the storage of such information. The emergency information box shall be installed in an approved location and the enclosed information shall be updated, annually or as changes dictate, by the occupant.
- **507.5.1:** This section is replaced with the following section.

507.5.1 Distribution of fire hydrants. Fire hydrants shall be nominally spaced every 500 linear feet in residential areas comprised of single-family dwellings. In commercial or industrial areas, or in residential areas containing condominiums, townhouses, or apartments, fire hydrants shall be nominally spaced every 300 feet. The chief may require that fire hydrants be placed at closer intervals to conform to street intersections, unusual street curvatures, or fire-flow requirements. Divided streets shall have hydrants on both sides of the street and shall, where applicable, be installed in alternate or staggered positions so that hydrants will not be directly across from each other.

- **507.5.7 Hydrants:** The following sections are added.

507.5.7 Hydrants. The chief is authorized to determine the types of hydrants acceptable for installation. In areas where public or private water mains are not available for the provision of required fire flow, the fire chief may require that water supply for fire fighting be provided in accordance with NFPA Standard #1142, 2007 Edition (Standard on Water Supplies for Suburban and Rural Fire Fighting)

507.5.8 Hydrant Identification. All fire hydrants shall be identified with a reflective, raised, blue pavement marker installed in the centerline of public and private roadways perpendicular to the location of the hydrant. Fire hydrants shall also be painted in accordance with the standard detail issued by the City of Fremont. Public and private hydrant shall be periodically painted to maintain rust protection and visibility.

- **508.1:** This section is replaced with the following section.

508.1 General. When required by other sections of this code and in all buildings four (4) or more stories in height and all buildings classified as high-rise buildings by the *California Building Code and Group I-2 occupancies having occupied floors located more than 75 feet (22,860mm) above the lowest level of fire department vehicle access*, a fire command center for fire department operations shall be provided and shall comply with Sections 508.1.1 through 508.1.7.

- **508.1.3 Size:** The following section is added at the end of the first paragraph.

Exception: In buildings four (4) or more stories in height, but not classified as a high-rise by the California Building Code, the fire command center shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438mm)

- **508.1.6:** The following section is added.

508.1.6 Floor Plan Signs. Building four (4) or more stories in height and all buildings classified as high-rise buildings by the *California Building Code* shall post a floor plan sign which provide emergency procedures at every stairway landing, elevator landing, and immediately inside all public entrances to the building. Information contained in the floor plan signs shall include, but not be limited to the following:

1. Location of exits and fire alarm initiating stations;
2. Description of fire alarm sounds and appearance;
3. Fire Department emergency telephone number 911;
4. Prohibition of the use of elevators during emergencies;
5. Instructions to be followed by ambulatory, non-ambulatory, and disabled persons in the event of an emergency
6. Notation "you are here" or other readily understandable marking specifying the location on the floor plan sign.
7. Floor plan signs shall be printed in non-decorative lettering which shall not be less than three-sixteenths of an inch (3/16") in height and shall provide a sharp contrast with the background. The information shall accurately depict the layout of the floor where the sign is located.

- **511 Air Replenishment Systems:** The following section is added.

**SECTION 511
AIR REPLENISHMENT SYSTEMS.**

511.1 Where required. Buildings classified as high-rise buildings by the *California Building Code* shall be equipped with an approved air replenishment system as required by the Fire Code Official.

- **608.6.2 Cabinet Ventilation:** The following section is added following the third paragraph.

3. Failure of the ventilation system shall initiate a local alarm and transmit a signal to a constantly attended station or automatically disengage the charging system.

- **903.2:** All new buildings and structures shall be provided with automatic fire sprinkler system, except:
 - Canopies over motor vehicle fuel dispensing facilities when constructed in accordance with Section 406.5 of the California Building Code.
 - Temporary construction trailers, less than 1,000 square feet, on-site less than 1-year and located 20-feet from property lines, buildings, structures and combustibles.
 - Type U Occupancies: Barns, fences more than 6 feet high, grain silos accessory to residential occupancies, green houses accessory to residential occupancies, livestock shelters, retaining walls, sheds, stables, tanks, towers.
 - Detached Group U occupancies housing dumpsters or refuse containers with floor area of 500 square feet or less.
 - Detached Group U occupancies housing dumpsters or refuse containers with floor area of 500 to 1,500 square feet provided all of the following are met:

- Building is constructed to Type IV or Type V-A or higher fire-resistive construction; and,
- Setback 5-feet to property line; and,
- Setback 10-feet to any other building on the site.
- Airport control towers.
- **903.2.18 Group U Private Garages and Carports Accessory to Group R-3 Occupancies:**
This section is replaced with the following section.

903.2.18 Group U private garages and carports accessory to Group R-3 occupancies. Carports and attached garages, accessory to Group R-3 occupancies, shall be protected by residential fire sprinklers in accordance with this section. Residential fire sprinklers shall be connected to, and installed in accordance with, an automatic residential fire sprinkler system that complies with section R313 of the California Residential Code or with NFPA 13-D. Fire sprinklers shall be residential or quick response sprinklers, designed to provide a minimum density of .05gpm/ft² over the area of the garage and/or carport, but not to exceed two sprinklers for hydraulic calculation purposes. Garage doors shall not be considered obstructions with respect to sprinkler placement.

- **903.2.19 Additions to Group A, B, E, F, H, I, L, M, R, S and Certain Miscellaneous Group U Occupancies:** The following section is added.

903.2.19 Additions to Group A, B, E, F, H, I, L, M, R, S, and certain miscellaneous group U occupancies. For additions to existing Group A, B, E, F, H, I, L, M, R, S, and U occupancies not exempted in 903.2, an automatic fire extinguishing system (AFES) shall be required throughout the entire building when one of the following thresholds is exceeded. For purposes of floor area calculations, Group U (private garages or similar) occupancies shall be included in the floor area calculation.

1. The combined floor area of the existing building plus the addition exceeds 5,000 square feet.
2. The addition exceeds 2,500 square feet.
3. The addition increases the floor area of the existing building by 50%. The increase in floor area shall be calculated cumulatively from July 1, 1999.

Exception: The existing portion of a one or two story building with no basement does not require automatic fire extinguishing systems when the following conditions are met:

- (a) The addition is protected by an AFES.
- (b) The addition and the existing structure are separated with two-hour or four-hour fire walls, any required protection, and fire rated openings according to type of construction.
- (c) An underwriter laboratory certified National Fire Protection Association Standard 72 approved fire alarm system shall be installed throughout the addition and the existing structure in all Assembly, Education, Institutional and Residential occupancies.

- **903.2.20 Additions to Existing R-3 Occupancies:** The following section is added.

903.2.20 Additions to existing R-3 occupancies. For additions to R-3 occupancies, an automatic fire extinguishing system (AFES) shall be required throughout the entire building when one of the following thresholds is exceeded. For purposes of floor area calculations, Group U (private garages or similar) occupancies shall be included in the floor area calculation:

1. The combined floor area of the existing building plus the addition exceeds 5,000 square feet.
2. The addition increases the floor area of the existing structure by 50%.

Exception: The entire residence including the addition does not require an AFES when the following conditions are met:

- (a) The approved addition is less than 500 square feet and the cumulative floor area is 5,000 square feet or less

or

The approved addition is less than 1,000 square feet, the cumulative floor area is 5,000 square feet or less and an approved local, hard wired or similarly configured, fire alarm and smoke detection system is installed throughout the existing structure and the addition.

- (b) No Planning or Building Department variances or exceptions are needed to accommodate the addition.
- (c) Exception (a) may be used only once for the first addition or conversion of existing space to habitable space occurring after July 1, 1999.

- **903.2.21 Repair/Retrofit:** The following section is added.

903.2.21 Repair/Retrofit. All occupancies except Group U occupancies exempted in 903.2 damaged during a fire or natural disaster shall require an automatic fire-extinguishing system to be installed in the entire structure. Retrofit criteria shall be as follows:

1. All installations of automatic fire extinguishing systems and signaling devices shall comply with the then current code.
2. Any occupancy that has been damaged as a result of a fire or natural disaster, except as otherwise noted, shall be retrofitted with an automatic fire

extinguishing system to the entire building and structure in accordance with the following criteria:

- a. When the estimated value of repair is less than 50 percent (50%) of the replacement value of the structure, the damaged portion(s) may be restored to their pre-damaged condition.
- b. When the estimated value of repair is 50 percent (50%) or more of the replacement value of the structure, the entire building shall be retrofitted with an automatic fire extinguishing system.

- **903.2.22:** The following section is added.

903.2.22 Retrofit for Essential Services Facilities. When the estimated value of repair contained in the engineering evaluation is more than thirty percent (30%) of the replacement value of the structure, the entire building shall be retrofitted with an automatic fire extinguishing system.

- **903.2.23:** The following section is added.

903.2.23 Retrofit for Historic Buildings or Structures. The minimum criteria for retrofit of Historic Buildings or Structures shall be as included in FMC Section 7-9115 (b), with due consideration given to the historical rating and nature of the structures. Additional standards and criteria, as noted in the California Code of Regulations and the State of California Historic Building Code, shall apply.

Where conflicts exist between the standards contained herein and the State of California Historic Building Code, the Historic Building Code shall govern.

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